

PARTS MANUAL

Series One-Ten MICROSTAR® Advanced Laboratory Microscopes

PARTS LIST

This manual contains a listing of parts and illustrations for the One-Ten MICROSTAR Microscope.



The illustrations are used to identify and locate parts of the microscope, and are keyed to the parts lists by the use of index numbers. To order a part, identify and locate the part by using the illustrations. Note the index number for the part and cross-reference it to the parts list. The part number, description, and quantity required will be found opposite the index number.

In certain cases, it may be desirable to replace a complete assembly instead of overhauling or rebuilding with detail parts. Where complete assemblies are available, they are indicated by a note in the description column to show which parts they include. Detail parts of these assemblies are also available separately.

Parts or assemblies should be ordered directly from the American Optical Corporation plant at Buffalo, N.Y., or from any AO authorized dealer. When ordering parts, be sure to include a complete description, part number, and correct quantity.

The following is a list of assemblies:

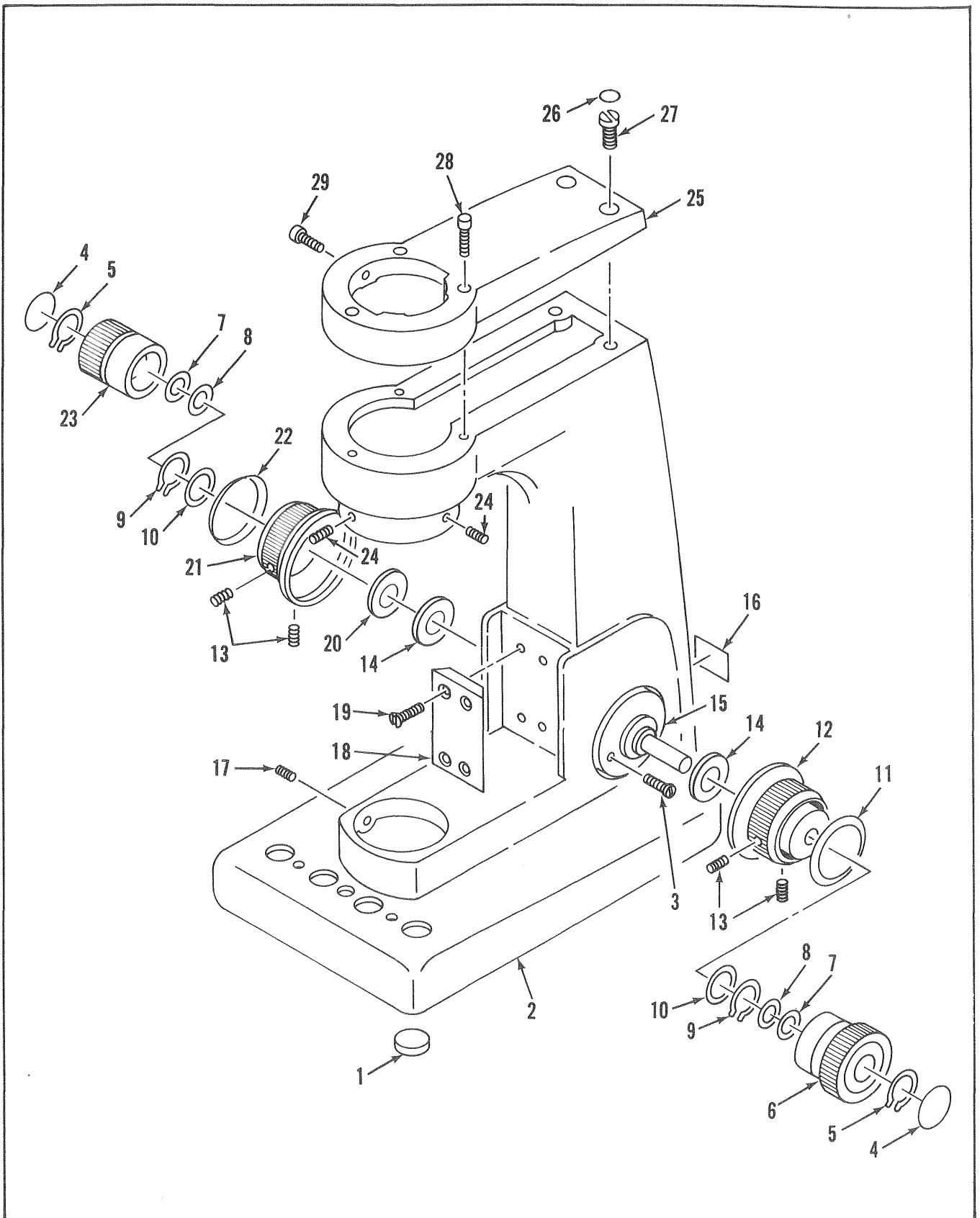
Stand
Trinocular Body, Cat. No. 1103
Ungraduated Mechanical Stage, Cat. No. 1194
Illuminator, Cat. Nos. 1139 and 1140
Illuminator, Cat. No. 1130
Eyepieces, Cat. Nos. 180, 184, C142

This Parts Manual does not necessarily contain information on all changes that have occurred to the subject instrument since the manual's date of issue. It was prepared for the use of American Optical factory-trained service personnel who are kept up to date through a program of Service Bulletins and Training Seminars.

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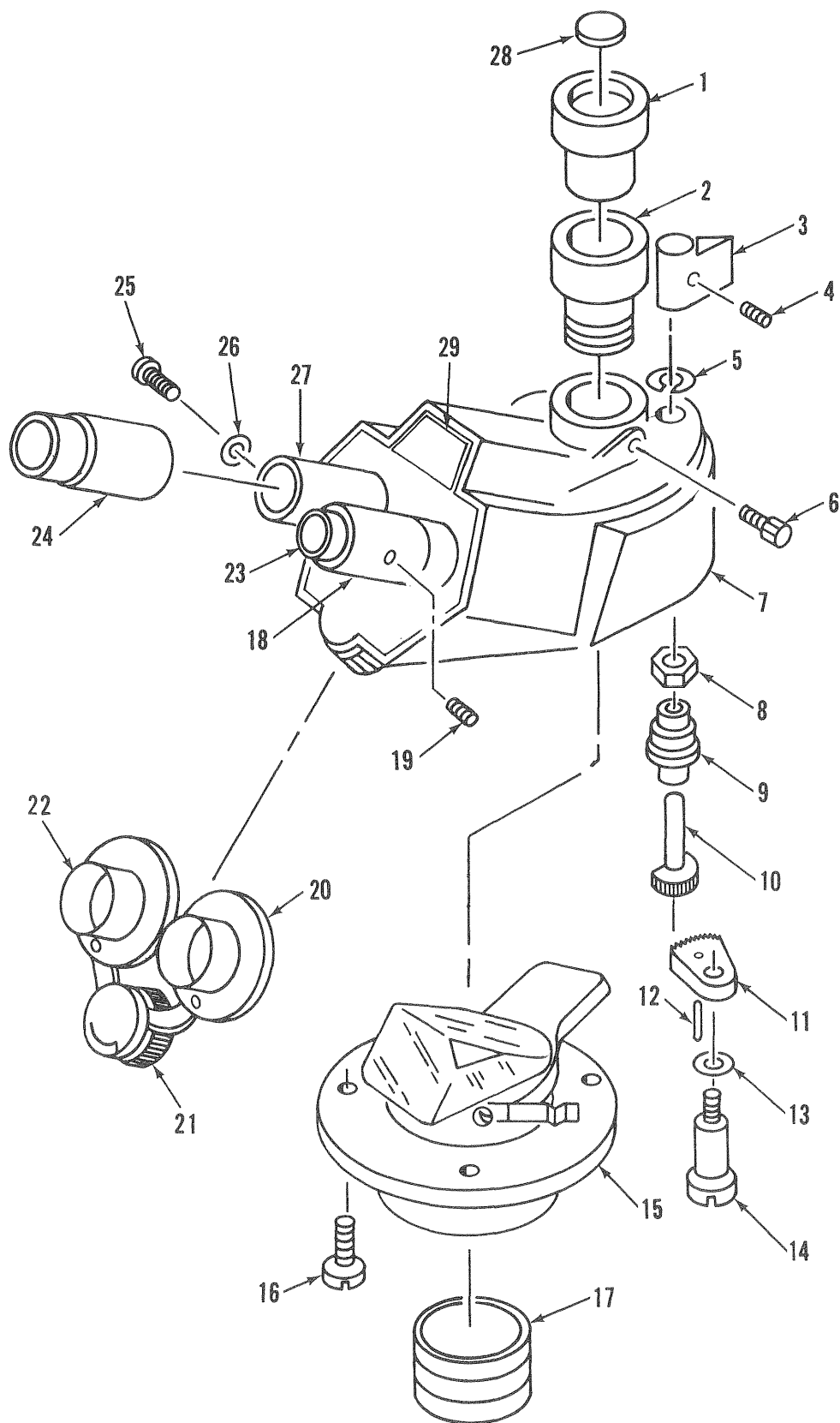
Price \$1.00



No. 110 - Stand

Stand No. 110

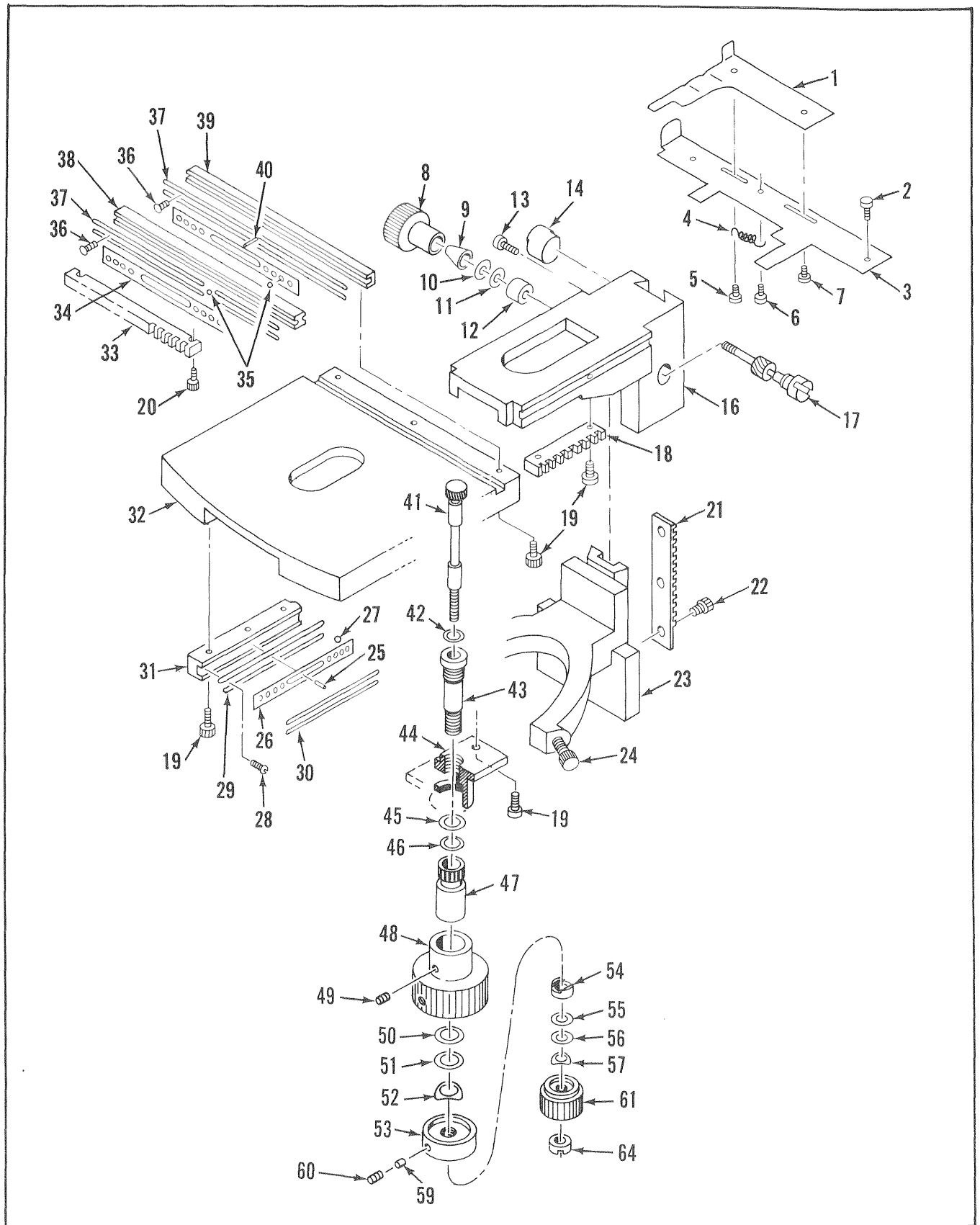
Index No.	Part Number	Description	Qty Per Assy
1	2-52	Pad	4
2	110-20	Frame	1
3	570-61	Screw	4
4	110-49	Disc, decorative	2
5	X-50972	Retaining ring	2
6	110-9	Knob, engraved F.A.	1
7	11330-180	Washer	2
8	X-50462	Washer, spring	2
9	X-50473	Retaining ring	2
10	110-18	Spacer	AR
11	110-31	Ring, knob insert	1
12	110-11	Knob, C.A.	1
13	110-83	Screw	4
14	110-16	Washer	2
15	110-81	Adapter, bearing	2
16	110-45	Serial plate	1
17	10-93	Screw	1
18	110-35	Stage dovetail	1
19	X-19448	Screw	4
20	110-62	Washer, spring	1
21	110-12	Knob, C.A.	1
22	110-32	Ring, knob insert	1
23	110-10	Knob, F.A. plain	1
24	10-98	Screw	3
25	110-22	Cover	1
26	110-34	Disc	2
27	X-19400	Screw	2
28	X-19418-58	Screw	3
29	10-853	Lock Screw Assembly	1



Catalog No. 1103 — Trinocular Body

Trinocular Body No. 1103

Index No.	Part Number	Description	Qty Per Assy
1	1103-11	Cap	1
2	1103-9	Adapter Camera	1
3	1135-852	Knob	1
4	X-20590	Set Screw	2
5	X-50820	Retaining Ring	1
6	1043-853	Screw	1
7	1103-2	Body, Trinocular	1
8	1043-64	Locknut	1
9	1043-63	Bushing	1
10	1103-7	Pinion	1
11	1103-6	Gear Sector	1
12	X-50763	Pin	1
13	X-53065	Washer, spring	1
14	1103-8	Shoulder Screw	1
15	1103-852	Adapter and Prism Assembly (Includes items 11-15)	1
16	1102-37	Screw	3
17	1102-851	Cell Assembly	1
18	1102-11	Eyeteube, Fixed	1
19	X-25706	Set Screw	2
20	1102-21	Adapter, R.H.	1
21	1102-22	Knob, P.D.	1
22	1102-20	Adapter, L.H.	1
23	1102-7	Sleeve, fixed	1
24	1102-8	Sleeve, focusing	1
25	0281-22	Screw	1
26	1042-43	Key, focusing	1
27	1102-9	Eyeteube, focusing	1
28	560-15	Disc	1
29	1102-31	Nameplate	1



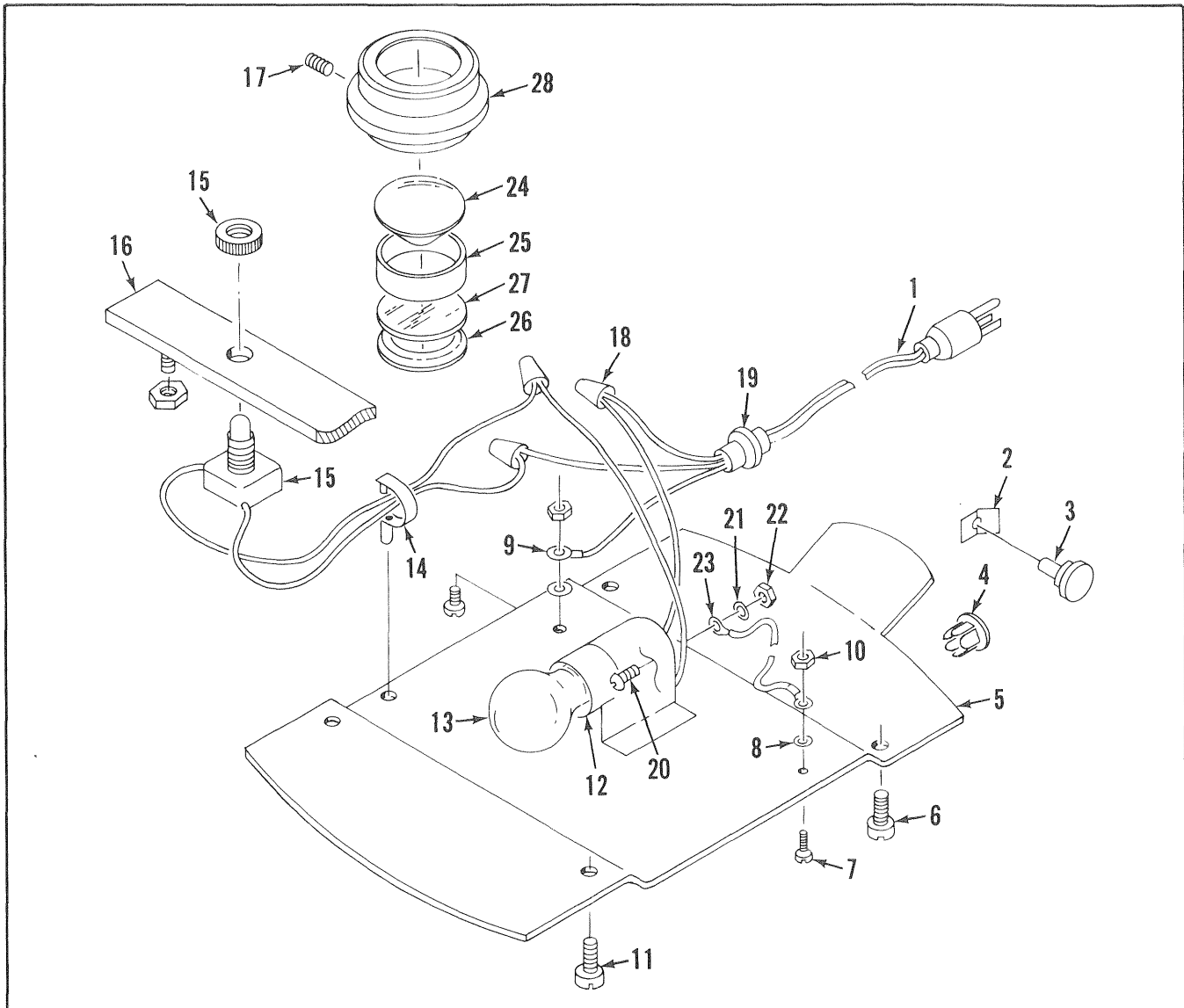
Catalog No. 1194 — Ungraduated Mechanical Stage

Stage No. 1194

Index No.	Part Number	Description	Qty Per Assy
1	1194-23	Finger, sliding	1
2	1062-14	Knob, finger	2
3	1194-22	Finger, fixed	1
4	33-79B	Spring	1
5	1062-12	Screw, spring	1
6	0866-1	Screw	1
7	1062-13	Screw, slide	1
8	1194-13	Knob	1
9	35-48	Bearing, thrust	2
10	1062-60	Spacer	1
11	01186-1	Washer	1
12	35-47B	Bearing, pinion	1
13	X-19406	Screw	1
14	1194-51	Lock, slide	1
16	1194-52	Stage, base	1
17	1194-853	Adjusting Pinion Assembly	1
18	1194-17	Rack, short	1
19	1194-32	Screw	12
20	0861-1	Screw	2
21	1062-57	Rack	1
22	0862-1	Screw	3
23	1194-25	Fork, condenser	1
24	1194-854	Centering Screw Assembly	2
25	X-50947	Pin	2
26	1194-11	Separator, short	2
27	35-14B	Ball	16
28	X-1390-1	Screw	8
29	1194-9	Track, short	4
30	1062-19	Track, short	4
31	1194-6	Guide, short	1
32	1194-4	Stage	1
33	1534-46	Rack, long	1
34	1194-10	Separator, long	2
35	10-6	Ball	16
36	0128-1	Screw	8
37	1194-8	Wire, long	8
38	1194-5	Slide, cross	1
39	1194-7	Guide, long	1
40	X-50707	Pin	1
41	1194-33	Inner pinion	1
42	1194-37	Washer	1
43	1194-34	Sleeve	1
44	1194-15	Mount	1
45	1194-36	Washer	1
46	1194-38	Washer	1
47	1194-35	Outer shaft	1
48	1194-40	Knob, large	1
49	X-36845	Screw	1
50	1534-33	Washer	1

Stage (continued)

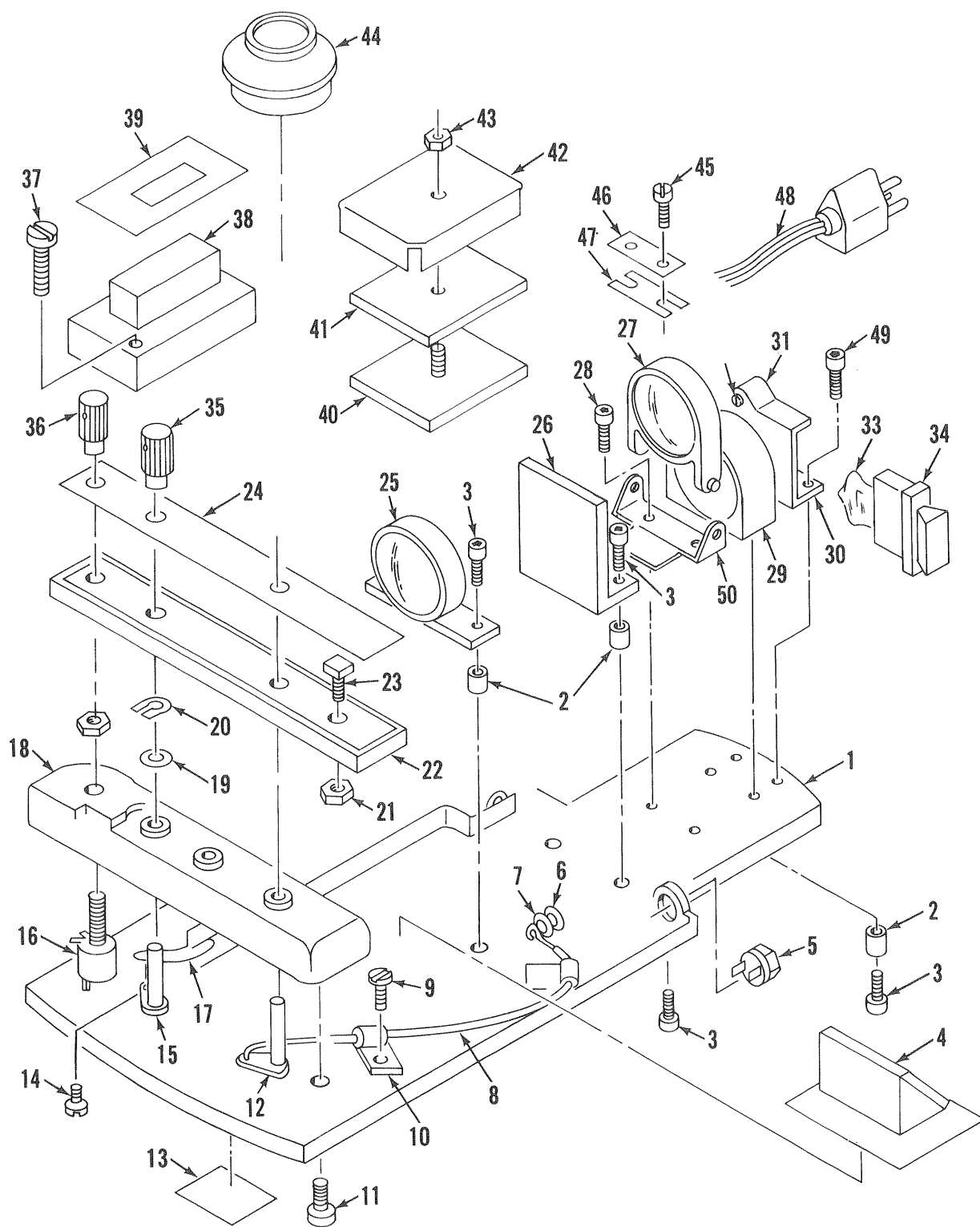
Index No.	Part Number	Description	Qty Per Assy
51	1194-48	Washer	1
52	X-50584	Washer, Spring	1
53	1194-49	Adjusting Nut	1
54	1534-31	Washer	1
55	1534-34	Washer	1
56	1194-47	Washer	1
57	1062-76	Washer, spring	1
59	1534-38	Nylon plug	1
60	X-20600	Set screw	1
61	1194-45	Knob, small	1
64	1194-46	Nut	1



Catalog No. 1139, 1140 — In-Base Illuminator

In-Base Illuminator

Index No.	Part Number	Description	Qty Per Assy
1	X-53034	Power Supply Cord	1
2	X-53408	Fastener, push-on	1
3	1140-14	Cover	1
4	X-23299-57	Plug Button	1
5	1140-854	Base and Bracket Assembly	1
6	X-38036	Screw	2
7	X-38032	Screw	2
8	X-16309	Washer, lock	2
9	X-50148	Terminal, wire	1
10	X-8015	Nut	2
11	X-38033	Screw	2
12	1140-12	Lampholder	1
13	611-1	Lamp	1
14	X-51666	Cable Strap	1
15	1140-15	Switch	1
16	1140-853	Cover and Plate Assembly	1
17	1139-852	Lock Screw Assembly	2
18	X-38151	Wire Joint	3
19	X-53430	Strain Relief	1
20	X-38660-22	Screw	1
21	X-16214	Washer	1
22	X-8081-2	Nut	1
23	1140-855	Wire Assembly	1
*	1140-851	Condensing Lens Assembly (For Cat. No. 1140 - includes items 24 through 28)	1
*	1139-851	Condensing Lens Assembly (For Cat. No. 1139 - includes items 24 through 28)	1
24	1140-601	Aspheric Condenser	1
25	1140-10	Spacer	1
26	X-53428	Push-On Ring	1
27	1139-601	Blue Glass (For Cat. No. 1139)	1
	1140-602	Blue Glass (For Cat. No. 1140)	1
28	1139-1	Mount (For Cat. No. 1139)	1
	1140-13	Mount (For Cat. No. 1140)	1

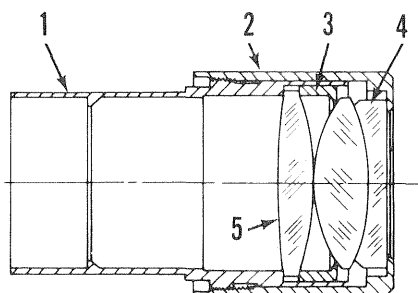


Catalog No. 1130 — In-Base Transformer and Illuminator

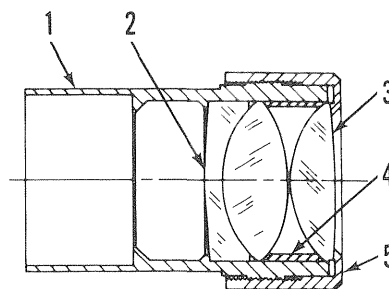
Illuminator No. 1130

Index No.	Part Number	Description	Qty Per Assy
1	1130-1	Base, illuminator	1
2	1130-49	Bushing	6
3	X-19400	Screw	10
4	1130-605	Mirror	1
5	1066-19	Jack	1
6	01030-1	Washer	1
7	X-50590	Ring	1
8	1130-34	Connector	1
9	X-53467	Screw	2
10	X-34325	Cable Clamp	2
11	X-19406	Socket Head Cap Screw	3
12	1130-860	Control Shaft Assembly	1
13	1130-45	Data Plate	1
14	1130-40	Screw, dog	1
15	1130-859	Control Shaft Assembly	1
16	1130-43	Control	1
17	1130-11	Link, filter	1
18	1130-17	Mount Control	1
19	X-53065	Washer, spring	2
20	X-50972	Retaining Ring	2
21	X-8081-2	Nut	2
22	1130-18	Cover, control	1
23	1130-28	Screw, square head	2
24	1130-35	Plate, control	1
25	1130-851	Collimator Lens Mounted	1
26	1130-855	Iris Mount Assembly	1
27	1130-856	Filter Mount Assembly	1
28	X-34510	Screw	2
29	1130-853	Collector Lens Assembly	1
30	1130-857	Lamp Adapter Assembly	1
31	1130-21	Lampholder Bracket	1
32	X-34587	Screw	2
33	1120	Halogen Lamp	1
34	1130-858	Lamp Socket Assembly	1
35	1130-42	Knob	2
36	1130-48	Knob	1
37	X-53566	Screw	2
38	1130-30	Transformer	1
39	1130-55	Gasket	2
40	1130-33	P. C. Board Assembly (Includes 1130-43 switch)	1
41	1130-13	Insulator	1
42	1130-20	P. C. Board Cover	1
43	X-8005	Nut	1
44	1130-850	Window and Mount Assembly	1
45	X-53110	Screw	5
46	1130-44	Clamp	1
47	1130-53	Insulator	1
48	X-53034	Power Supply Cord	1
49	X-53111	Screw	2
50	1130-54	Bracket, filter	1

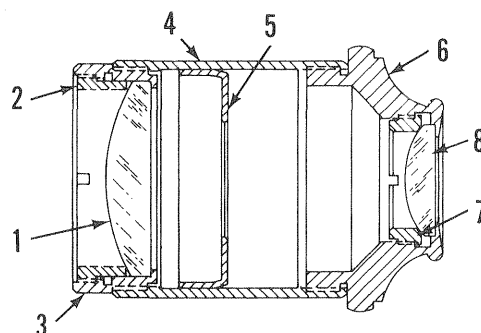
Eyepieces



Cat. No. 180 — 10X Wide Field Eyepiece



Cat. No. 184 — 15X Wide Field Eyepiece



Cat. No. C142 — 10X Huygenian Eyepiece

Index No.	Part Number	Description	Qty Per Assy
Cat. No. 180 — 10X Wide Field Eyepiece			
1	180-5	Tube	1
2	180-3	Cap	1
3	180-4	Separator	1
4	180-701	Doublet	1
5	180-601	Front Lens	1
Cat. No. 184 — 15X Wide Field Eyepiece			
1	184-15	Tube	1
2	184-704	Doublet	1
3	184-613	Crown, single	1
4	184-16	Spacer	1
5	184-17	Cap	1
Cat. No. C142 — 10X Huygenian Eyepiece			
1	142-602	Field Lens	1
2	142-6	Retaining Ring	1
3	142-3	Field Cell	1
4	142-1	Tube	1
5	142-2	Diaphragm	1
6	142-8	Eye Cell	1
7	142-4	Retaining Ring	1
8	142-603	Eye Lens	1